

Identification of high leverage points in binary logistic regression

ABSTRACT

Leverage points are those which measures uncommon observations in x space of regression diagnostics. Detection of high leverage points plays a vital role because it is responsible in masking outlier. In regression, high observations which made at extreme in the space of explanatory variables and they are far apart from the average of the data are called as leverage points. In this project, a method for identification of high leverage point in logistic regression was shown using numerical example. We investigate the effects of high leverage point in the logistic regression model. The comparison of the result in the model with and without leverage model is being discussed. Some graphical analyses based on the result of the analysis are presented. We found that the presence of HLP have effect on the hii, estimated probability, estimated coefficients, p-value of variable, odds ratio and regression equation.

Keyword: High leverage points; Leverage; Logistic regression